AERONAUTICAL CHARTING FORUM Charting Group Meeting 15-02 – October 28 - 29, 2015

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD <u>15-02-296</u>

<u>Subject</u>: New Chart Symbol for Unmanned Free Balloon Activities and Request to Add "Rocket" to Space Launch Activity Areas

Background/Discussion:

Amateur rocket activities in the NAS are not considered "Space Launch" activities. We have specific sites in the U.S. where high-powered amateur rockets are launched 90% of the time and on a regular basis.

Unmanned free balloon activities are increasing in the NAS and we have several locations where a number of balloons are launched daily. It would enhance situational awareness for users if a symbol could identify these locations on our charts.

Recommendations:

Request that "rocket" be added to the description in U.S. Government Specifications, Sectional Aeronautical and VFR Terminal Area, IACC 2, Chart Appendix 7. New description would read, "Space Launch/Rocket Activity Areas" so current symbol could cover both space launch rockets and amateur rockets.

Request that a new symbol be made available for unmanned free balloon activities. Suggest that the following be added to Appendix 7 under Special Activities Area; "Unmanned Free Balloon Activities". Also suggest the following symbol:



<u>Submitted by</u>: Paul Eure <u>Organization</u>: FAA/AJV-113

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Date: June 11, 2015

MEETING 15-02

Part I: Charting of Amateur Rocket Activity Areas

Paul Eure, AJV-113, introduced a recommendation for the charting of amateur rocket activity areas. Paul recommends that use of the newly introduced rocket symbol that was approved by the IACC to indicate space launch activity areas be expanded to include amateur rocket activity areas. Paul said that there are specific sites where amateur rocket launches are conducted by such government organizations as NASA and DoD and by commercial rocket manufacturers. Paul estimates that there are over 50 large, high-powered rocket launches per year. In addition to these organizational rocket launches, there are amateur rocket events at specific launch sites that conduct activities with rockets that may climb from 3,000 feet up to 484,000 feet. These amateur rockets are high power, and, in some cases, multistage rockets.

Paul stated there is currently one amateur rocket site in Nevada that he believes should be charted with the rocket symbol to enhance situational awareness for pilots. Black Rock, NV is a major amateur launch site, which when active with a TFR, has a protected airspace radius of 17NM. Paul emphasized that amateur rockets are not considered space operations, but that doesn't lessen the danger associated with such activities to pilots and aircraft.

Rich Fecht, AJV-5223, suggested that Visual Charting could use the current rocket symbol for Black Rock, but that there would need to be a specification change in order to expand the definition of the symbol to include amateur rockets.

Valerie Watson, AJV-553, asked why these areas need to be charted if a NOTAM and TFR is always released for major launches. Paul stated that a TFR is required for those launches that are planned to fly at or above 18,000 feet. However, launches that are projected to fly below that altitude can be launched without a NOTAM, using spotters.

Rune Duke, AOPA, asked how it would be determined what sites qualify for a symbol. Paul responded that sporadic activities would not qualify. Guy Copeland, AJV-522, stated that before Black Rock and other similar amateur sites can be charted, criteria needs to be devised to establish a threshold whereby such facilities could qualify to be charted.

It was suggested, and Paul agreed, that Flight Standards should be involved in the establishment of criteria for publication/charting of rocket activity areas. Number and frequency of activity, altitudes, contact information, etc., should possibly be considered. Paul will work with AFS to attempt to define criteria.

Rick Mayhew asked if such launch facilities are included in the AFD. Valerie stated that publication of a text entry in the Notices section of the AFD is something that could be accomplished quickly while a long term charting solution is investigated. Paul stated that that was something that he would like to investigate further.

Part II: Charting of Unmanned Free Balloon Activities

Paul Eure, AJV-113, introduced a recommendation for the depiction of unmanned free balloon activity areas on VFR charts. Paul stated that at present, there is nothing on the charts to indicate areas of high balloon launch activity. The balloons launched are designed to travel up to 100,000 feet often carrying cargo. The most common, regularly scheduled balloon launches are associated with weather balloons launched at 07h00 and 19h00 every day. There are 108 weather balloon launch sites and the weather services launches over 75,000 balloons per year.

Paul stated that, in addition to weather balloons, Google, NASA and others also launch balloons in a similar manner and to extremely high altitudes. Paul stated his believe that this is a safety of flight issue and pilots need to know where this activity is taking place. Balloons such as Google's do not have restrictions regarding terms of launch, have no transponder or lighting requirements and no payload restrictions. The only restrictions in place pertain to operating near Class B airspace and that launch companies have to provide a notice of launch.

Paul commented that <u>Title 14, Part 101 – Moored Balloon, Kites, Amateur Rockets and Unmanned Free Balloons</u> needs to be updated. The last time Subpart D, Unmanned Free Balloons was revised was 1964.

Ted Thompson, Jeppesen, commented that the charting of these launch sites at this time is premature. Regulation needs to come before charting so that criteria can be established. He also pointed out that this request is to add something to the charts that is dynamic in nature – this is difficult on a 224 day update cycle. He suggested that publication of Special Notice might be more appropriate.

John Moore, Jeppesen, commented that written criteria needs to be established before there is any discussion of charting. Once criteria is established, then you have to develop how such sites, rocket or balloon, are to be documented. Only after these steps are taken should charting be considered.

Guy Copeland, AJV-522, stated that if Flight Standards provides a threshold criteria for charting and the areas are published in NASR (or as NFDD add-on pages), Visual Charts could likely accommodate this request as long as the threshold for charting did not cause undo congestion to the VFR products.

Rune Duke, AOPA, asked if there was any data regarding an increase in aircraft-balloon incidents. Paul replied that yes, there have been 12 incidents in the last two years. Rune asked if those incidents were in the vicinity of the launch sites that Paul would like to see charted. Paul responded that he did not know the locations of the incidents.

STATUS: OPEN

<u>ACTION</u>: Paul Eure, AJV-113, will work with Flight Standards on developing criteria for charting amateur rocket and unmanned free balloon launch sites on Visual Charts. He will also consider submission of Notices for publication in the AFDs.

ACTION: Rick Mayhew, AJV-533, and Valerie Watson, AJV-553, will coordinate with Paul Eure regarding publication in the Special Notices section of the AFD.

MEETING 16-01

Valerie Watson, FAA/AJV-553, reviewed the issue and reported that she provided guidance to Paul Eure, FAA/AJV-113, regarding the electronic submission process for submission of Special Notices in the Chart Supplement.

Paul Gallant, FAA/AJV-113, reported that not much progress has been made since last ACF. Paul stated that they are going to begin work on putting together Special Notices for publication in the Chart Supplement. They also plan to begin coordination with Flight Standards regarding the development of charting criteria.

STATUS: OPEN

ACTION: Paul Gallant, FAA/AJV-113, to provide an update on the publication of Special Notices and on discussions with Flight Standards regarding charting criteria.

MEETING 16-02

Valerie Watson, FAA/AJV-553, reviewed the topic. Paul Gallant, FAA/AJV-113, speaking on behalf of Paul Eure, FAA/AJV-113, stated that no work had yet been done on the publication of Special Notices due to other pressing priorities.

STATUS: OPEN

ACTION: Paul Gallant, FAA/AJV-113, to provide an update on the publication of Special Notices and on discussions with Flight Standards regarding charting criteria.

MEETING 17-01

Meeting was cancelled.

MEETING 17-02

Valerie Watson, FAA/AJV-553, reported that Paul Gallant, FAA/AJV-11, requested that this recommendation, originally submitted by his office, be withdrawn. If this issue becomes a priority again in the future a follow-up recommendation will be submitted.

STATUS: CLOSED